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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,394	03/28/2005	Pilgrim Giles William Beart	P08594US00/RFH	6724

881 7590 08/03/2006

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EXAMINER

MURALIDAR, RICHARD V

ART UNIT PAPER NUMBER

2838

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Ver

Office Action Summary	Application No.	Applicant(s)	
	10/529,394	BEART ET AL.	
	Examiner	Art Unit	
	Richard V. Muralidar	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21, 23-38, 40-50 and 54-71 is/are pending in the application.
- 4a) Of the above claim(s) 51-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-21, 23-38, 40-50 and 54-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/13/06, 11/29/05, 3/28/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The specification is objected to because the body lacks descriptive headings. The body may be formatted using the following suggested headings: Field of the Invention, Background of the Invention, Summary of the Invention, Brief Description of the Drawings, Detailed Description, and Claims. Appropriate correction is required.

Drawings

Figure 1 is objected to because it requires a prior art label, since only what is already known is shown. Appropriate correction is required.

Claim Objections

Claims 51-53 are objected to and withdrawn from consideration because they depend upon cancelled claim 16. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-21, 23-34, 36-38, 40-50, and 54-71 are rejected under 35

U.S.C. 102(e) as being anticipated by Yamamoto [U.S. 2003/0003971].

Claims 1-16 [canceled by applicant].

With respect to Claim 17, Yamamoto discloses a primary unit [Fig. 1, charger body 105 with induction core 107] for use in a power transfer system [Fig. 2; power is transferred from primary coil 201 to secondary coil 205] that has a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [par. 0014] when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface [Fig. 1, the outer surface of induction core 107]; and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively [Fig. 2, power feed portion 203 provides inductive charging through induction core 107]; the primary unit being arranged such that there are at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive

DETAILED ACTION

Specification

The specification is objected to because the body lacks descriptive headings. The body may be formatted using the following suggested headings: Field of the Invention, Background of the Invention, Summary of the Invention, Brief Description of the Drawings, Detailed Description, and Claims. Appropriate correction is required.

Drawings

Figure 1 is objected to because it requires a prior art label, since only what is already known is shown. Appropriate correction is required.

Claim Objections

Claims 51-53 are objected to and withdrawn from consideration because they depend upon cancelled claim 16.

Claim 32 is objected to because it presents no substantially new inventive information over independent claim 17.

Claim 45 is objected to because it presents no substantially new inventive information over independent claims 17, 32, and 42].

Claim 61 is objected to because it presents no substantially new inventive information over independent claim 17, 46, 54]. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-71 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto [U.S. 2003/0003971].

Claims 1-16 [canceled by applicant].

With respect to Claim 17, Yamamoto discloses a primary unit [Fig. 1, charger body 105 with induction core 107] for use in a power transfer system [Fig. 2; power is transferred from primary coil 201 to secondary coil 205] that has a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [par. 0014] when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface [Fig. 1, the outer surface of induction core 107]; and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively [Fig. 2, power feed portion 203 provides inductive charging through induction core 107]; the primary unit being arranged such that there are at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive

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power inductively from the inductive power supply [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position]; and further comprising at least one attaching element [the curved hook of induction core 107] which temporarily releasably attaches the device to the primary unit in each of said first and second positions such that the device is held on or in proximity to the power transfer surface, the at least one attaching element providing a non-gravitational force [in the perpendicular position, induction core 107 will prevent devices 109 or 111 from moving due to its mechanical penetration through the charging arches 113], acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface [devices 109 and 111 will be restrained by the closed-loop design of charging arch 113, which will prevent any significant horizontal displacement from occurring when the primary unit is installed in the perpendicular position, i.e. with induction core 107 pointing upwards, mobile device 109 will be unable to move horizontally], when the device is attached to the primary unit in any one of said positions.

With respect to Claim 18, Yamamoto discloses a primary unit according to claim 17, wherein said at least one attaching element [the curved hook of induction core 107]

is arranged on the power transfer surface [Fig. 1, the outer surface of induction core 107].

With respect to Claim 19, Yamamoto discloses that at least one attaching element [the curved hook of induction core 107] is adapted [Fig. 1, the rod shape of induction core 107 is an adaptation to fit through the charging arches 113 of the mobile devices] to attach the device to the primary unit in two or more discrete relative positions [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around induction core 107].

With respect to Claim 20, Yamamoto discloses said at least one attaching element [the curved hook of induction core 107] is adapted to attach the device to the primary unit in any position along a line extending in one translational dimension of the power transfer surface or in any position within a two-dimensional area of the power transfer surface [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around induction core 107].

With respect to Claim 21, Yamamoto discloses said at least one attaching element [the curved hook of induction core 107] comprises one or more of the following: hook-and-eye fasteners [Fig. 1, the hook is the curved portion of induction core 107, and the eye is the hole of charging arches 113 of the mobile devices],

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suckers, reusable self-adhesive glue, a high stiction/friction surface [Fig. 1, the curved hook portion of induction core 107 is a high friction portion, particularly the outer tip of the curved hook, because it will require a substantial disturbance for mobile device 109 to move enough to cause charging arch 113 to get to the end of induction core 107 and “fall off”. Additionally, “high friction” is a relative term, and Yamamoto does not disclose or suggest any motivation as to why the connection between the induction core 107 and the charging arch 113 would be low friction; for example, greased or otherwise lubricated], a permanent magnet or array of permanent magnets, an electromagnet or array of electromagnets, and electrostatically-charged terminals.

Claim 22 [cancelled by applicant].

With respect to Claim 23, Yamamoto discloses that said at least one attaching element comprises a spiked system [the rod of induction core 107 is the spike, and the charging arch of device 109 is the corresponding hole. Examiner notes that the specification cites the children’s toy Stickle-Bricks as an example of a spiked system. Strictly speaking, these are not spikes, which denotes a *sharp, pointed* end. The tips of the Stickle-Brick connector rods are rounded, much like the tip of induction core 107].

With respect to Claim 24, Yamamoto discloses that at least one said attaching element [Fig. 1, induction core 107] has one or more aesthetic or visual qualities to indicate to a user that the primary unit is available to supply power inductively [seeing the empty curved hook of induction 107, without any devices hanging on it, is a visual indication that the unit is available to supply power inductively].

With respect to Claim 25, Yamamoto discloses that said qualities [the empty curved hook of induction 107, without any devices hanging on it, is a visual indication that the unit is available to supply power inductively] include one or more of: a colour, texture, pattern, logo design, and a material [when charger 105 is not charging any devices, the empty/unused space of the curved hook of induction core 107 indicates to the user that the unit is available to supply power inductively. Induction core 107 is made of an unspecified material of an unspecified color. If no devices are hanging on induction core 107, more of this material with its color will be visible, indicating that the charger is available to power devices. Less of this material with its color will be visible if the charger is fully loaded and therefore not available to power additional devices].

With respect to Claim 26, Yamamoto discloses that at least one of said qualities changes according to an operating state of the primary unit and/or the device [the visual indication of the empty/unused space of the curved hook of indication core 107 signifies the operating state of the unit is 0%. A visual indication of the curved hook of induction core 107 fully loaded with devices to be charged signifies the operating state of the unit is at or about 100%. This is so because Yamamoto does not disclose a power switch to turn the charger on and off, and the circuit shown in Fig. 2 of the charger 105 makes it apparent that charging will commence as soon as the devices are hung on the induction core 107].

With respect to Claim 27, Yamamoto discloses that there are two or more classes of portable electrical or electronic device [the charger is capable of charging various sorts of portable equipment- par. 0009; par. 0010], and at least one said

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attaching element has one or more aesthetic or visual qualities to inform a user that the primary unit, or a certain part thereof, is appropriate for supplying power inductively to a particular said class of device [the curved hook of induction core 107 is a visual indication/quality that the unit is appropriate for supplying power inductively to an appropriate class of devices with corresponding charging arches built-in to them].

With respect to Claim 28, Yamamoto discloses that said qualities include one or more of: a colour, texture, pattern, logo design, and a material [when charger 105 is not charging any devices, the empty/unused space of the curved hook of induction core 107 indicates to the user that the unit is available to supply power inductively. Induction core 107 is made of an unspecified material of an unspecified color. If no devices are hanging on induction core 107, more of this material with its color will be visible, indicating that the charger is available to power devices. Less of this material with its color will be visible if the charger is fully loaded and therefore not available to power additional devices].

With respect to Claim 29, Yamamoto discloses that at least one of said qualities changes according to an operating state of the primary unit and/or the device [the visual indication of the empty/unused space of the curved hook of indication core 107 signifies the operating state of the unit is 0%. A visual indication of the curved hook of induction core 107 fully loaded with devices to be charged signifies the operating state of the unit is at or about 100%. This is so because Yamamoto does not disclose a power switch to turn the charger on and off, and the circuit shown in Fig. 2 of the

charger 105 makes it apparent that charging will commence as soon as the devices are hung on the induction core 107].

With respect to Claim 30, Yamamoto discloses a primary unit according to claim 17, wherein the power transfer surface is flat [Fig. 2, viewed two-dimensionally as a cross-section, the portion of the power transfer surface of induction core 107 encircled by primary coil 201 is flat].

With respect to Claim 31, Yamamoto discloses a primary unit wherein the power transfer surface extends vertically when the primary unit is in use [when the unit is used in the perpendicular position, the power transfer surface of induction core 107 will extend vertically upwards- par. 0034].

With respect to Claim 32, Yamamoto discloses a system for transferring power to at least one portable electrical or electronic device by inductive coupling, comprising: a primary unit having a power transfer surface and an inductive power supply which supplies power inductively; a portable electrical or electronic device separable from the primary unit and adapted to receive power inductively from the inductive power supply when the device is placed on or in proximity to the power transfer surface, the primary unit and the device being arranged such that there are at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive power inductively from the inductive power supply; and at least one attaching element which temporarily releasably attaches the device to the primary unit in each of said first and second positions such that the device is held on or in proximity to the power transfer surface, said attaching element(s) providing a non-

gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface, when the device is attached to the primary unit in any one of said positions [the limitations of this claim have been met by the arguments of the preceding claim 17].

With respect to Claim 33, Yamamoto discloses that at least one said attaching element [Fig. 1, charging arch 113] is arranged on a surface of the device [Fig. 1, the charging arch 113 is arranged on the top surface of mobile device 109, 111], which surface is on or in proximity to the power transfer surface [the outer power transfer surface of induction core 107 engages the inner surface of charging arch 113 to accomplish inductive coupling] when the device is placed to receive power inductively from the inductive power supply.

With respect to Claim 34, Yamamoto discloses that said at least one attaching element comprise a first attaching element arranged on the device [Fig. 1, this device attaching element is charging arch 113] and a second attaching element arranged on the power transfer surface [Fig. 1, this attaching element on the power transfer surface is the curved hook of induction core 107], the first element corresponding to the second element such that the device is attachable to the power transfer surface [the induction core 107 penetrates the charging arch 113], but the device is not attachable to another such device [the charging arch 103 cannot be attached to another such charging arch because it is of a closed loop form], and the power transfer surface is not attachable to another such power transfer surface [the curved hook portion of induction core 107

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cannot securely engage another such induction core because the curved hook is open ended semi-circular; the attached induction core would fall off].

With respect to Claim 36, Yamamoto discloses a plurality of such portable electrical or electronic devices [Fig. 1, portable telephone 109, other portable equipment 111], at least one of which is of a different type from another of the devices [the charger is capable of charging various sorts of portable equipment- par. 0009; par. 0010].

With respect to Claim 37, Yamamoto discloses a plurality of such portable electrical or electronic devices [Fig. 1, portable telephone 109, other portable equipment 111], wherein the primary unit is adapted to supply power simultaneously to at least two devices [both 109 and 111 are shown being simultaneously powered in Fig. 1; the charger is capable of charging various sorts of portable equipment- par. 0009; par. 0010].

With respect to Claim 38, Yamamoto discloses at least two primary units [Fig. 1, charger body 105 with induction core 107 is one primary unit; Fig. 3, charger 3 is another primary unit] and at least two portable devices, wherein a first primary unit and a first portable device have an attaching element of a first type [the attaching element for the first unit is the curved hook of induction core 107], and the second primary unit and the second portable device have an attaching element of a second type [the attaching element of charger 3 is the space in charger 3 that accommodates portable telephone 1], such that a primary unit with an attaching element of one type cannot be

attached to a portable device having attaching element of the other type [the induction core 107 cannot be attached to the space in charger 3].

Claim 39 [cancelled by applicant].

With respect to Claim 40, Yamamoto discloses that the device is below the power transfer surface [Fig. 1, portable telephone 109 and other portable equipment 111 are shown hanging below the transfer surface of induction core 107] when held on or in proximity thereto in use of the system.

With respect to Claim 41, Yamamoto discloses that the primary unit is carried in or by a movable conveyance [the charger may be mounted in an automobile- par. 0037].

With respect to Claim 42, Yamamoto discloses a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002] adapted to receive power from a primary unit that has a power transfer surface [Fig. 1, the outer surface of induction core 107] and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively, said device being separable from the primary unit and adapted to receive power from the inductive power supply by inductive coupling when the device is placed on or in proximity to the power transfer surface [Fig. 2, power feed portion 203 provides inductive charging through induction core 107 which couples to charging arch 113], the device being arranged such that there are at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive power inductively from the inductive power supply [when installed perpendicularly on the floor per par. 0034,

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devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position], and wherein the device comprises at least one attaching element [Fig. 1, charging arch 113] which temporarily releasably attaches the device to the primary unit in each of said first and second positions [in the perpendicular position, induction core 107 will prevent devices 109 or 111 from moving due to its mechanical penetration through the charging arches 113] such that the device is held on or in proximity to the power transfer surface, said attaching element(s) providing a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface [devices 109 and 111 will be restrained by the closed-loop design of charging arch 113, which will prevent any significant horizontal displacement from occurring when the primary unit is installed in the perpendicular position; i.e. with induction core 107 pointing upwards, mobile device 109 will be unable to move horizontally], when the device is attached to the primary unit in any one of said positions

With respect to Claim 43, Yamamoto discloses that at least one said attaching element [Fig. 1, the charging arch 113 of portable telephone 109] has one or more aesthetic or visual qualities [the circularly shaped, close-looped arch 113 is a visual indicator of induction coupling capability, of the hanging variety] to indicate to a user that the device is capable of receiving power inductively.

With respect to Claim 44, Yamamoto discloses that there are one or more classes of portable electrical or electronic device [portable telephone 109 is one class of device], and at least one said attaching element has one or more aesthetic or visual qualities to inform a user that the device belongs to a particular said class of device [the charging arch 113 of portable telephone 109 is a visual indicator that the telephone is of a class of devices capable of accepting inductive charging].

With respect to Claim 45, Yamamoto discloses a method of transferring power to portable electrical or electronic devices by inductive coupling from a primary unit having a power transfer surface, the or each portable electrical or electronic device being separable from the primary unit and being adapted to receive power inductively from the primary unit when the device is placed on or in proximity to the power transfer surface, and there being at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive power inductively from the primary unit, which method comprises: providing a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface, when the device is placed on or in proximity to the power transfer surface in any one of said positions, such that the device is temporarily releasably attached to the primary unit in that position [the limitations of this claim have been met by the preceding claims 17, 32, and 42].

With respect to Claim 46, Yamamoto discloses a primary unit [Fig. 1, charger body 105 with induction core 107], for use in a power transfer system [Fig. 2; power is

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transferred from primary coil 201 to secondary coil 205] that has a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002] separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [par. 0014] when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface [Fig. 1, the outer surface of induction core 107]; and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively, the primary unit being arranged such that there are at least first and second different relative positions, or at least first and second different relative orientations [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around induction core 107], in which the device can be placed with respect to the power transfer surface to receive power inductively from the inductive power supply, wherein the power transfer surface comprises a high friction surface portion [Fig. 1, the curved hook portion of induction core 107 is a high friction portion, particularly the outer tip of the curved hook, because it will require a substantial disturbance for mobile device 109 to move enough to cause charging arch 113 to get to the end of induction core 107 and "fall off". Additionally, "high friction" is a relative term, and Yamamoto does not disclose or suggest any motivation as to why the connection between the induction core 107 and the charging arch 113 would be low friction; for example, greased or otherwise lubricated] which provides a force acting to resist sliding movement of the device across the power transfer surface in a direction

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parallel to that surface [the tip of the curved hook of induction core 107 will prevent such parallel movement by mobile device 109 held by charging arch 113], when the device is placed in contact with the power transfer surface in any one of said positions [this high friction characteristic applies to the charger either mounted on the wall with induction core 107 horizontal, or mounted on the floor per. Par. 0034, with induction core 107 vertical], or in any one of said orientations, as the case may be.

With respect to Claim 47, Yamamoto discloses that the primary unit is adapted to supply power simultaneously to at least two devices [both 109 and 111 are shown being simultaneously powered in Fig. 1; the charger is capable of charging various sorts of portable equipment- par. 0009; par. 0010].

With respect to Claim 48, Yamamoto discloses that the high friction surface portion [Fig. 1, the curved hook of induction core 107] has one or more aesthetic or visual qualities to indicate to a user that a primary unit is available to supply power inductively [when charger 105 is not charging any devices, the empty/unused space of the curved hook of induction core 107 indicates to the user that the unit is available to supply power inductively].

With respect to Claim 49, Yamamoto discloses that said qualities include one or more of: a colour, texture, pattern, logo design, and a material [as in claim 48, when charger 105 is not charging any devices, the empty/unused space of the curved hook of induction core 107 indicates to the user that the unit is available to supply power inductively. Induction core 107 is made of an unspecified material of an unspecified color. If no devices are hanging on induction core 107, more of this material with its

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color will be visible, indicating that the charger is available to power devices. Less of this material with its color will be visible if the charger is fully loaded and therefore not available to power additional devices].

With respect to Claim 50, Yamamoto discloses that at least one of said qualities changes according to an operating state of the primary unit and/or the device [the visual indication of the empty/unused space of the curved hook of indication core 107 signifies the operating state of the unit is 0%. A visual indication of the curved hook of induction core 107 fully loaded with devices to be charged signifies the operating state of the unit is at or about 100%. This is so because Yamamoto does not disclose a power switch to turn the charger on and off, and the circuit shown in Fig. 2 of the charger 105 makes it apparent that charging will commence as soon as the devices are hung on the induction core 107].

Claims 51-53 [withdrawn from consideration].

With respect to Claim 54, Yamamoto discloses a system for transferring power [Fig. 2; power is transferred from primary coil 201 to secondary coil 205] to portable electrical or electronic devices [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002] by inductive coupling, comprising: a primary unit [Fig. 1, charger body 105 with induction core 107] having a power transfer surface [Fig. 1, the outer surface of induction core 107] and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively; and a portable electrical or electronic device separable from the primary unit and adapted to receive power inductively from the inductive power supply when the device is placed on or in proximity to the power

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transfer surface, the primary unit and the device being arranged such that there are at least first and second different relative positions [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position], or at least first and second different relative orientations, in which the device can be placed with respect to the power transfer surface to receive power inductively from the inductive power supply, wherein the power transfer surface comprises a high friction surface portion [Fig. 1, the curved hook portion of induction core 107 is a high friction portion, particularly the outer tip of the curved hook, because it will require a substantial disturbance for mobile device 109 to move enough to cause charging arch 113 to get to the end of induction core 107 and "fall off". Additionally, "high friction" is a relative term, and Yamamoto does not disclose or suggest any motivation as to why the connection between the induction core 107 and the charging arch 113 would be low friction; for example, greased or otherwise lubricated] which provides a force acting to resist sliding movement of the device across the power transfer surface in a direction parallel to that surface [the friction due to the surface material of induction core 107, combined with the front and rear tips of the curved hook of induction core 107 will prevent movement of the device parallel to the power transfer surface in the horizontal

configuration], when the device is placed in any one of said positions, or in any one of said orientations, as the case may be.

With respect to Claim 55, Yamamoto discloses a surface of the device also comprises a high friction surface portion [Fig. 1, the surface of the inside of the curved closed-loop portion of charging arch 113 is a high friction portion, because it will require a substantial disturbance for mobile device 109 to move enough to cause charging arch 113 to get to the end of induction core 107 and “fall off”. Additionally, “high friction” is a relative term, and Yamamoto does not disclose or suggest any motivation as to why the connection between the induction core 107 and the charging arch 113 would be low friction; for example, greased or otherwise lubricated], which surface portion is in contact with the high friction surface portion of the power transfer surface when the device is placed to receive power inductively from the inductive power supply [the induction core 107 engages/passes through the charging arch 113 to accomplish inductive charging].

With respect to Claim 56, Yamamoto discloses a plurality of such portable electrical or electronic devices [Fig. 1, portable telephone 109 is one type of device while other portable equipment 111 is another type of portable device], at least one of which is of a different type from another of the devices.

With respect to Claim 57, Yamamoto discloses a primary unit of a different type [Fig. 1, charger body 105 with induction core 107- the horizontal type shown in Fig. 1] from the primary unit of claim 38 [Fig. 1, charger body 105 with induction core 107- the perpendicular type- per par. 0034], wherein the or each said device is adapted to

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receive power from any one of the primary units [each of device 109 or 111 can be charged by either embodiment of charger 105].

With respect to Claim 58, Yamamoto discloses that the primary unit is carried in or by a movable conveyance [the charger may be mounted in an automobile- par. 0037].

With respect to Claim 59, Yamamoto discloses A method of transferring power to at least one portable electrical or electronic device by inductive coupling from a primary unit having a power transfer surface, the or each portable electrical or electronic device being separable from the primary unit and being adapted to receive power inductively from the primary unit when the device is placed on or in proximity to the power transfer surface, and there being at least first and second different relative positions, or at least first and second different relative orientations, in which the device can be placed with respect to the power transfer surface to receive power inductively from the primary unit, which method comprises: employing a high friction surface portion of the power transfer surface to provide a force, acting to resist sliding movement of the device across the power transfer surface in a direction parallel to that surface, when the device is placed in contact with the power transfer surface in any one of said positions, or in any one of said orientations, as the case may be [the method of carrying out this claim is accomplished by the device limitations of claim 54; i.e., all the limitations of this claim has been met by the arguments of preceding claim 54].

With respect to Claim 60, Yamamoto discloses a primary unit [Fig. 1, charger body 105 with induction core 107], for use in a power transfer system [Fig. 2; power is

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transferred from primary coil 201 to secondary coil 205] that has a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002] separable from the primary unit and adapted to receive power from the primary unit by inductive coupling when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface [Fig. 1, the outer surface of induction core 107]; and an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively, the primary unit being arranged such that there are at least first and second different relative positions, or at least first and second different relative orientations [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position], in which the device can be placed with respect to the power transfer surface to receive power inductively from the inductive power supply, wherein the power transfer surface is generally flat, and comprises at least one surface indentation or contour [Fig. 2, viewed two-dimensionally as a cross-section, the portion of the power transfer surface of induction core 107 encircled by primary coil 201 is flat. The curved hook portion of induction core 107 is the contour portion to hold the device to be charged] which resists movement of the device across the power transfer surface in a direction parallel to that surface, when the device is placed in any one of said positions or orientations [the front and rear end

of the curved hook of charging inductor 107 will prevent significant device movement parallel to the power transfer surface].

With respect to Claim 61, Yamamoto discloses a primary unit for use in a power transfer system that has a portable electrical or electronic device, the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface; and means for supplying power inductively; the primary unit being arranged such that there are at least first and second different relative positions in which the device can be placed with respect to the power transfer surface to receive power inductively from the supplying means; and further comprising connecting means for temporarily releasably attaching the device to the primary unit in each of said first and second positions such that the device is held on or in proximity to the power transfer surface, said connecting means being adapted to provide a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface, when the device is attached to the primary unit in any one of said positions [the limitations of this claim have been met by the arguments of the preceding claims 17, 46, and 54].

With respect to Claim 62, Yamamoto discloses a primary unit [Fig. 1, charger body 105 with induction core 107] for transferring power inductively to a portable electrical or electronic device [Fig. 1, portable telephone 109 or other portable equipment 111], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [par. 0014], and the primary

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unit comprising: an inductive power supply [Fig. 2, power feed portion 203] which supplies power inductively; and a surface having a power transfer portion [Fig. 1, the outer surface of induction core 107] on or in proximity to which the device is placed to receive power inductively; wherein the primary unit possesses at least one visual or tactile quality indicating where on the surface to place the portable device to receive power [Fig. 1, the visual quality indicating where to place the portable device is the curved hook of induction core 107].

With respect to Claim 63, Yamamoto discloses a primary unit as claimed in claim 62, wherein at least one said visual or tactile quality changes in use in dependence upon a state of the device and/or primary unit [Fig. 1, the visual quality indicating where to place the portable device is the curved hook of induction core 107. This visual indicator will change depending upon the state of the primary unit since more devices loaded onto induction core 107 will result in less visual space on the curved hook of induction core 107 that is visible; while fewer devices will result in more visual space on the curved hook of induction core 107 that is visible. The number of devices hanging on the curved hook of induction core 107 is a good indication of power output/state of the charger, since the devices will begin to draw power as soon as they are hung unto induction core 107, as shown in Fig. 2].

With respect to Claim 64, Yamamoto discloses an item of furniture [Yamamoto's device can be mounted anywhere, including a piece of furniture, in view of par. 0024, 0034, and 0037, which specify a wall (vertical), a floor (horizontal), or an automobile as possible sites for installation] having a primary unit embedded [the charger may be

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embedded in a wall- par. 0035] within it, the primary unit comprising an inductive power supply [Fig. 2, power feed portion 203] adapted to transfer power inductively to a portable electrical or electronic device [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling, wherein: the item of furniture has a surface [the surface of the wall 103 or the floor 101] on or in proximity to which the device is placed to receive power inductively from the primary unit; and the item of furniture possesses at least one visual or tactile quality indicating the presence of the primary unit in the item of furniture [the visual presence of the primary unit will be the projection of induction core 107, as shown projecting out from wall 103 in Fig. 1].

With respect to Claim 65, Yamamoto discloses an inductive power supply unit [Fig. 3, charger 3], for supplying power inductively to one or more power-receiving devices at least one of which is a rechargeable battery or cell having a cylindrical body, the unit having a power transfer surface on which the or each power-receiving device is placed to receive power inductively and from which the or each device is separable, and the surface having at least one indentation or contour adapted to hold the battery or cell having the cylindrical body in position on the surface when placed thereon [Fig. 3, charger 3 has a contour to accept portable telephone 1 for inductive charging. That same contour will accept and charge a cylindrical battery with the proper internal coil, providing the circumference of the battery is small enough to fit into the contour].

Alternatively, the induction charger shown in Fig. 1 is capable of charging *any* kind of device, including a cylindrical battery, as long as that device or cylindrical battery as an appropriate pickup coil to couple with/ or come into close proximity to induction core 107, either in the horizontal or perpendicular arrangement.

With respect to Claim 66, Yamamoto discloses that the power transfer surface is generally flat except for said at least one indentation or contour [Fig. 2, viewed two-dimensionally as a cross-section, the portion of the power transfer surface of induction core 107 encircled by primary coil 201 is flat. The curved hook portion of induction core 107 is the contour portion to hold the device to be charged].

With respect to Claim 67, Yamamoto discloses that the inductive power supply unit and at least one said power-receiving device are adapted such that there are at least two different relative positions, or at least two different relative orientations, in which that device can be placed with respect to the power transfer surface to receive power inductively from the unit [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position].

With respect to Claim 68, Yamamoto discloses an inductive power supply unit [Fig. 1, charger body 105 with induction core 107], for supplying power inductively to one or more power-receiving devices [Fig. 1, portable telephone 109 and other

portable equipment 111; par. 0002], the unit having a power transfer surface [Fig. 1, the outer surface of induction core 107] on which the or each power-receiving device is placed to receive power inductively and from which the or each device is separable, the power transfer surface having a bowl-shaped indentation [Fig. 2, the curved hook of induction core 107 is bowl shaped when viewed cross-sectional] adapted to hold at least one of the devices in position on the surface when the device is placed in the indentation [the charging arch 113 is placed in the indentation of the curved hook of induction core 107].

With respect to Claim 69, Yamamoto discloses that the power transfer surface is generally flat except for said indentation [Fig. 2, viewed two-dimensionally as a cross-section, the portion of the power transfer surface of induction core 107 encircled by primary coil 201 is generally flat, except for the indentation created by the curved hook portion of induction core 107 to hold the device to be charged].

With respect to Claim 70, Yamamoto discloses that the inductive power supply unit and at least one said power-receiving device are adapted such that there are at least two different relative positions, or at least two different relative orientations, in which that device can be placed with respect to the power transfer surface to receive power inductively from the unit [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative

orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position].

With respect to Claim 71, Yamamoto discloses a system for transferring power [Fig. 2; power is transferred from primary coil 201 to secondary coil 205] to portable electrical or electronic devices by inductive coupling [Fig. 1, portable telephone 109 and other portable equipment 111; par. 0002], comprising: a primary unit [Fig. 1, charger body 105 with induction core 107] having a power transfer surface [Fig. 1, the outer surface of induction core 107] and means for supplying power inductively [Fig. 2, power feed portion 203 provides inductive charging through induction core 107]; and a portable electrical or electronic device separable from the primary unit and adapted to receive power inductively from the supplying means when the device is placed on or in proximity to the power transfer surface, the primary unit and the device being arranged such that there are at least first and second different relative positions, or at least first and second different relative orientations [when installed perpendicularly on the floor per par. 0034, devices 109 and 111 can be in any one of a 360 degree orientation with respect to the outer surface of induction core 107, as long as charging arches 113 are coupled around/attached to induction core 107. This represents 360 different possible relative orientations with respect to the power transfer surface of induction core 107, with one degree of separation between each position] in which the device can be placed with respect to the power transfer surface to receive power inductively from the supplying means, and wherein the power transfer surface is generally flat, and comprises at least one surface indentation or contour [Fig. 2, viewed two-dimensionally

as a cross-section, the portion of the power transfer surface of induction core 107 encircled by primary coil 201 is generally flat, except for the indentation created by the curved hook portion of induction core 107 to hold the device to be charged] for resisting movement of the device across the power transfer surface in a direction parallel to that surface [the front and rear portions of the curved hook of induction core 107 will prevent any substantial parallel movement of the devices to be charged, regardless of which orientation they are placed], when the device is placed in any one of said positions or orientations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto [U.S. 2003/0003971].

With respect to Claim 35, Yamamoto discloses that at least one said attaching element comprises a single projection on one of the device and the power transfer surface [induction core 107 is itself a projection of the power transfer surface], and a plurality of corresponding holes on the other [the holes though charging arches 113 of devices 109 and 111]. However, Yamamoto does not disclose a plurality of projections.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a plurality of Yamamoto's inductive chargers [105], each with its own induction core [107] projection for the benefit of being able to charge more than two devices [109, 111] at the same time. Doing so would result in a plurality of attaching projections that would allow attachment/charging of numerous devices simultaneously.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art [U.S 5959433] by Rhode is cited for the disclosure of a universal inductive charger with a three-dimensionally flat surface. Prior art [U.S 6014008] by Hartzell et al. discloses a battery identification system with means for securing a battery to a charger using multiple projections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard V. Muralidar whose telephone number is 571-272-8933. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RVM
7/29/2006


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